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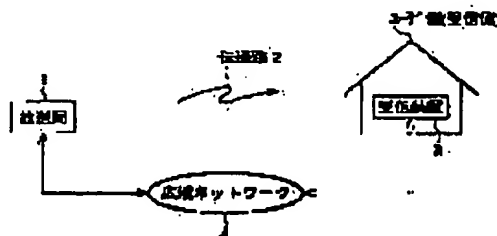
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(54) TRANSMITTER-RECEIVER, TRANSMISSION/RECEPTION METHOD, RECEIVER, RECEPTION METHOD, TRANSMITTER AND TRANSMISSION METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To immediately provide music listened to in radio broadcast.

SOLUTION: Various radio programs are broadcasted from a broadcast station 1 corresponding to a normal program and program data from the broadcast station 1 are received in this receiver 3 and outputted on a user side. Thus, at the time of listening to the program and desiring the music used for the program, a user operates the receiver 3 so as to request the music. Then, in the receiver 3, the effect of requesting the music desired by the user (request information) is transmitted through a wide-area network 4. In the broadcast station 1, the music (audio data) used in the program is managed, and at the time of receiving the request information from the receiver 3, the audio data corresponding to the request information are transmitted through the wide-area network 4 to the receiver 3. In the receiver 3, they are received and recorded.



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CLAIMS

[Claim(s)]

[Claim 1] It is a transmitter-receiver equipped with the sending set which transmits the program data which are data of a program, and the receiving set which receives the program data. Said receiving set A program data receiving means to receive said program data, and an output means to output said program data received by said program data receiving means. The actuation means operated when requiring the associated data relevant to said program data. It has an identification information transmitting means to transmit the identification information for identifying said associated data demanded by operating said actuation means to said sending set. Said sending set A storage means by which said associated data is memorized, and a program data transmitting means to transmit said program data. An identification information receiving means to receive said identification information transmitted from said receiving set. The transmitter-receiver characterized by having a retrieval means to search the associated data corresponding to said identification information from said storage means, and an associated data transmitting means to transmit said associated data searched by said retrieval means.

[Claim 2] It is the transmitter-receiver according to claim 1 characterized by to transmit said identification information for said program data transmitting means to identify said associated data with said program data, and to transmit said identification information by which said identification information also received said program data receiving means with said program data transmitted from said program data transmitting means, and said identification-information transmitting means was received with said program data receiving means when said actuation means was operated.

[Claim 3] It is the transmitter-receiver according to claim 1 characterized by to search said associated data connected with said transmitting time of day corresponding to [connected said storage means with the transmitting time of day when said program data corresponding to the associated data are transmitted, it has memorized said associated data, and said identification-information transmitting means transmits actuation time of day when said actuation means is operated as said identification information, and] said actuation time of day in said retrieval means.

[Claim 4] Said receiving set is a transmitter-receiver according to claim 1 characterized by having further an associated data receiving means to receive said associated data transmitted from said associated data transmitting means.

[Claim 5] Said receiving set is a transmitter-receiver according to claim 4 characterized by having further a record means to record said associated data received by said associated data receiving means.

[Claim 6] It is the transmitter-receiver according to claim 1 which the specific information for specifying a predetermined terminal with said identification information also transmits said identification information transmitting means, and said specific information also receives said identification information receiving means with said identification information, and is characterized by said associated data transmitting means transmitting said associated data corresponding to said identification information to said terminal specified by said specific information.

[Claim 7] Said associated data is a transmitter-receiver according to claim 1 characterized by being the video data or audio data transmitted as said program.

[Claim 8] It is the transceiver approach of a transmitter-receiver equipped with the sending set which transmits the program data which are data of a program, and the receiving set which receives the program data. Said receiving set While receiving and outputting said program data, when actuation of requiring the associated data relevant to the program data is made The identification information for identifying the associated data is transmitted to said sending set. Said sending set The transceiver approach characterized by receiving said identification information transmitted from said receiving set, searching the associated data corresponding to the identification information from a storage means by which said

associated data is memorized, and transmitting while transmitting said program data.

[Claim 9] A program data receiving means to receive said program data transmitted from the sending set which transmits the program data which are data of a program and to be a receiving set and to receive said program data. An output means to output said program data received by said program data receiving means. The receiving set characterized by having an identification information transmitting means to transmit the identification information for identifying said associated data demanded by operating the actuation means operated when requiring the associated data relevant to said program data, and said actuation means to said sending set.

[Claim 10] It is the receiving set according to claim 9 characterized by transmitting said identification information for said sending set identifying said associated data with said program data, and transmitting said identification information by which said identification information also received said program data receiving means with said program data, and said identification information transmitting means was received with said program data receiving means when said actuation means was operated.

[Claim 11] Said identification information transmitting means is a receiving set according to claim 9 characterized by transmitting actuation time of day when said actuation means is operated as said identification information.

[Claim 12] The receiving set according to claim 9 characterized by having further an associated data receiving means to receive said associated data corresponding to the identification information transmitted from said sending set by transmitting said identification information.

[Claim 13] The receiving set according to claim 12 characterized by having further a record means to record said associated data received by said associated data receiving means.

[Claim 14] Said identification information transmitting means is a receiving set according to claim 9 characterized by for the specific information for specifying a predetermined terminal with said identification information also transmitting, and said sending set transmitting said associated data corresponding to said identification information to said terminal specified by said specific information.

[Claim 15] Said associated data is a receiving set according to claim 9 characterized by being the video data or audio data transmitted as said program.

[Claim 16] The receiving approach which is the reception approach of a receiving set of receiving said program data transmitted from the sending set which transmits the program data which are data of a program, and is characterized by to transmit the identification information for identifying the associated data to said sending set when actuation of requiring the associated data relevant to the program data is made, while receiving and outputting said program data.

[Claim 17] A storage means by which are the sending set which transmits the program data which are data of a program to a receiving set, and the associated data relevant to said program data is memorized. A program data transmitting means to transmit said program data, and an identification information receiving means to receive the identification information for identifying said associated data transmitted from said receiving set. The sending set characterized by having a retrieval means to search the associated data corresponding to said identification information from said storage means, and an associated data transmitting means to transmit said associated data searched by said retrieval means.

[Claim 18] Said program data transmitting means is a sending set according to claim 17 characterized by transmitting said identification information for identifying said associated data with said program data.

[Claim 19] It is the sending set according to claim 17 characterized by searching said associated data connected with said transmitting time of day corresponding to [connected said storage means with the transmitting time of day when said program data corresponding to the associated data are transmitted, it has memorized said associated data, and said identification information receiving means receives predetermined time of day as said identification information, and] said predetermined time of day in said retrieval means.

[Claim 20] Said identification information receiving means is a sending set according to claim 17 which the specific information for specifying a predetermined terminal with said identification information also receives, and is characterized by said associated data transmitting means transmitting said associated data corresponding to said identification information to said terminal specified by said specific information.

[Claim 21] Said associated data is a sending set according to claim 17 characterized by being the video data or audio data transmitted as said program.

[Claim 22] The transmitting approach which is the transmitting approach of a sending set of transmitting the program data which are data of a program to a receiving set, and is characterized by receiving said identification information for identifying the associated data relevant to said program data transmitted from said receiving set, searching the associated data corresponding to the identification information from a

storage means by which said associated data is memorized, and transmitting while transmitting said program data.

[Claim 23] The sending set which transmits the program data which are data of a program, and the receiving set which receives the program data. The 1st information processor which performs processing for requiring the associated data relevant to said program data received by said receiving set. It is a transmitter-receiver equipped with the 2nd information processor which performs processing which receives said associated data which said 1st information processor required. Said receiving set It has a program data receiving means to receive said program data, and an output means to output said program data received by said program data receiving means. Said 1st information processor The actuation means operated when requiring the associated data relevant to said program data received by said receiving set. The identification information for identifying said associated data demanded by operating said actuation means with the specific information for specifying said 2nd information processor It has an information transmitting means to transmit to said sending set. Said sending set A storage means by which said associated data is memorized, and a program data transmitting means to transmit said program data. An information receiving means to receive said identification information and specific information which are transmitted from said 1st information processor. A retrieval means to search the associated data corresponding to said identification information from said storage means. It has an associated data transmitting means to transmit said associated data searched by said retrieval means to said 2nd information processor specified by said specific information. Said 2nd information processor The transmitter-receiver characterized by having an associated data receiving means to receive said associated data transmitted from said associated data transmitting means, and a record means to record said associated data received by said associated data receiving means.

[Claim 24] The sending set which transmits the program data which are data of a program, and the receiving set which receives the program data. The 1st information processor which performs processing for requiring the associated data relevant to said program data received by said receiving set. It is the transceiver approach of a transmitter-receiver equipped with the 2nd information processor which performs processing which receives said associated data which said 1st information processor required. Said receiving set Said program data transmitted from said sending set are received and outputted. Said 1st information processor When actuation of requiring the associated data relevant to said program data received by said receiving set is made, the identification information for identifying the associated data with the specific information for specifying said 2nd information processor While it transmits to said sending set and said sending set transmits said program data Said identification information and specific information which are transmitted from said 1st information processor are received. The associated data corresponding to said identification information is searched from a storage means by which said associated data is memorized. It is the transceiver approach characterized by receiving and recording said associated data which transmits to said 2nd information processor specified by said specific information, and said 2nd information processor is searched in said sending set, and is transmitted.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]**[0001]**

[Field of the Invention] This invention relates to a sending set and the transmitting approach at a transmitter-receiver and the transceiver approach, a receiving set and the receiving approach, and a list. It is related with a sending set and the transmitting approach at the transmitter-receiver which enables it to obtain easily the audio data which are the music as a program especially broadcast by the radio broadcasting, television broadcasting, etc., the video data which is a movie etc. and the transceiver approach, a receiving set and the receiving approach, and a list.

[0002]

[Description of the Prior Art] For example, the program currently broadcast in the radio broadcasting etc. is receivable with a radio set.

[0003]

[Problem(s) to be Solved by the Invention] By the way, in a radio broadcasting, if a program is a song program, music is broadcast as the program (transmission), and even if a program is except a song program, music may be broadcast as BGM (Back Ground Music), or the music currently used in it may be broadcast as commercials. Here, since it can say that such music constitutes a part of program, and relates to a program with announcer's voice and other audio signals, it can be called associated data.

[0004] And when music is broadcast by the radio broadcasting, a user listens to the music with a radio set, and I want the music to come to please him. There is a method of recording the music received with the radio set in this case.

[0005] However, in order to record the music broadcast by the radio broadcasting from the beginning of the music, the newspaper program column etc. needed to be seen, the time it is broadcast beforehand that music is needed to be investigated, and it was troublesome.

[0006] Moreover, in everyday life, when the music broadcast by the radio broadcasting is listened to and the music is pleased, by having started sound recording from the time, music cannot be recorded from the beginning.

[0007] Then, although there was the approach of going to purchase in a dealer record media, such as CD (compact disk) with which the music was recorded, when the music broadcast by the radio broadcasting was pleased, it had to go by this to the dealer and was troublesome at it. Furthermore, even if it went to a dealer, when neither the music name of the music nor a singer's sung singer name was known, it was difficult to purchase CD with which the music was recorded.

[0008] This invention enables it to obtain easily the associated data relevant to the programs, such as music used in the program which was made in view of such a situation, for example, was broadcast by the radio broadcasting.

[0009]

[Means for Solving the Problem] An actuation means by which a transmitter-receiver according to claim 1 is operated when a receiving set requires the associated data relevant to program data, A storage means by which had an identification information transmitting means to transmit the identification information for identifying the associated data demanded by operating an actuation means to a sending set, and the sending set has memorized associated data. It is characterized by having an identification information receiving means to receive the identification information transmitted from a receiving set, a retrieval means to search the associated data corresponding to identification information from a storage means, and an associated data transmitting means to transmit the associated data searched by the retrieval means.

[0010] The identification information for identifying the associated data is transmitted to a sending set, a

sending set receives the identification information transmitted from a receiving set, and the transceiver approach according to claim 8 is characterized by searching the associated data corresponding to the identification information from a storage means by which associated data is memorized, and transmitting, when actuation in which a receiving set requires the associated data relevant to program data is made.

[0011] A receiving set according to claim 9 is characterized by having an identification information transmitting means to transmit the identification information for identifying the associated data demanded by operating the actuation means operated when requiring the associated data relevant to program data, and an actuation means to a sending set.

[0012] The receiving approach according to claim 16 is characterized by transmitting the identification information for identifying the associated data to a sending set, when actuation of requiring the associated data relevant to program data is made.

[0013] A sending set according to claim 17 is characterized by having a storage means by which the associated data relevant to program data is memorized, an identification information receiving means to receive the identification information for identifying the associated data transmitted from a receiving set, a retrieval means to search the associated data corresponding to identification information from a storage means, and an associated data transmitting means to transmit the associated data searched by the retrieval means.

[0014] The transmitting approach according to claim 22 receives the identification information for identifying the associated data relevant to program data transmitted from a receiving set, and is characterized by searching the associated data corresponding to the identification information from a storage means by which associated data is memorized, and transmitting.

[0015] A program data receiving means by which, as for a transmitter-receiver according to claim 23, a receiving set receives program data. An actuation means by which have an output means to output the program data received by the program data receiving means, and it is operated when the 1st information processor requires the associated data relevant to the program data received by the receiving set. The identification information for identifying the associated data demanded by operating an actuation means with the specific information for specifying the 2nd information processor. A storage means by which had an information transmitting means to transmit to a sending set, and the sending set has memorized associated data. A program data transmitting means to transmit program data, and an information receiving means to receive the identification information and specific information which are transmitted from the 1st information processor. A retrieval means to search the associated data corresponding to identification information from a storage means. It has an associated data transmitting means to transmit the associated data searched by the retrieval means to the 2nd information processor specified by specific information. The 2nd information processor is characterized by having an associated data receiving means to receive the associated data transmitted from an associated data transmitting means, and a record means to record the associated data received by the associated data receiving means.

[0016] The transceiver approach according to claim 24 receives and outputs the program data with which a receiving set is transmitted from a sending set. When actuation in which the 1st information processor requires the associated data relevant to the program data received by the receiving set is made, the identification information for identifying the associated data with the specific information for specifying the 2nd information processor. While it transmits to a sending set and a sending set transmits program data, the identification information and specific information which are transmitted from the 1st information processor are received. It is characterized by receiving and recording the associated data which searches the associated data corresponding to identification information from a storage means by which associated data is memorized, transmits to the 2nd information processor specified by specific information, and the 2nd information processor is searched in a sending set, and is transmitted.

[0017] In the transmitter-receiver according to claim 1, an actuation means is operated when requiring the associated data relevant to program data, and the identification information transmitting means is made as [transmit / to a sending set / the identification information for identifying the associated data demanded by operating an actuation means]. The storage means has memorized associated data and the identification information receiving means is made as [receive / the identification information transmitted from a receiving set]. A retrieval means searches the associated data corresponding to identification information from a storage means, and the associated data transmitting means is made as [transmit / the associated data searched by the retrieval means].

[0018] When actuation in which a receiving set requires the associated data relevant to program data is made in the transceiver approach according to claim 8, the identification information for identifying the associated data is transmitted to a sending set, and a sending set receives the identification information

transmitted from a receiving set, and is made as [transmit / search the associated data corresponding to the identification information from a storage means by which associated data is memorized, and].

[0019] In the receiving set according to claim 9, an actuation means is operated when requiring the associated data relevant to program data, and the identification information transmitting means is made as [transmit / to a sending set / the identification information for identifying the associated data demanded by operating an actuation means].

[0020] In the receiving approach according to claim 16, when actuation of requiring the associated data relevant to program data is made, it is made as [transmit / to a sending set / the identification information for identifying the associated data].

[0021] In the sending set according to claim 17, the storage means has memorized the associated data relevant to program data, and the identification information receiving means is made as [receive / the identification information for identifying the associated data transmitted from a receiving set]. A retrieval means searches the associated data corresponding to identification information from a storage means, and the associated data transmitting means is made as [transmit / the associated data searched by the retrieval means].

[0022] In the transmitting approach according to claim 22, the identification information for identifying the associated data relevant to program data transmitted from a receiving set is received, and it is made as [transmit / search the associated data corresponding to the identification information from a storage means by which associated data is memorized, and].

[0023] In the transmitter-receiver according to claim 23, a program data receiving means receives program data, and the output means is made as [output / the program data received by the program data receiving means]. An actuation means is operated when requiring the associated data relevant to the program data received by the receiving set, and the information transmitting means is made as [transmit / with the specific information for specifying the 2nd information processor / to a sending set / the identification information for identifying the associated data demanded by operating an actuation means]. The storage means has memorized associated data and the program data transmitting means is made as [transmit / program data]. An information receiving means receives the identification information and specific information which are transmitted from the 1st information processor, and the retrieval means is made as [search / from a storage means / the associated data corresponding to identification information]. An associated data transmitting means transmits the associated data searched by the retrieval means to the 2nd information processor specified by specific information, an associated data receiving means receives the associated data transmitted from an associated data transmitting means, and the record means is made as [record / the associated data received by the associated data receiving means].

[0024] In the transceiver approach according to claim 24, a receiving set receives and outputs the program data transmitted from a sending set. When actuation in which the 1st information processor requires the associated data relevant to the program data received by the receiving set is made, the identification information for identifying the associated data with the specific information for specifying the 2nd information processor. While it transmits to a sending set and a sending set transmits program data, the identification information and specific information which are transmitted from the 1st information processor are received. The associated data corresponding to identification information is searched from a storage means by which associated data is memorized, and it transmits to the 2nd information processor specified by specific information, and is made as [record / the 2nd information processor / the associated data searched and transmitted in a sending set / receive and].

[0025]

[Embodiment of the Invention] Drawing 1 shows the configuration of the 1st of the gestalt of operation of the audio offer system which applied this invention. In this audio offer system, it is made as [get / a user / the music broadcast by the broadcasting stations 1, such as FM (Frequency Modulation) radio station, / for example, / (on real time) / immediately].

[0026] That is, from a broadcasting station 1, various programs are broadcast according to the usual program. The program data which are data of this program are transmitted to each user through the transmission lines 2 usually used for broadcast, such as a land-based line and a satellite circuit.

[0027] The program data from a broadcasting station 1 are received by the receiving set 3 at a user (addressee) side. In a receiving set 3, the program data from a broadcasting station 1 are outputted, and, thereby, a user can hear the program.

[0028] And a user hears a program, and when asking for the music as associated data used for the program, he operates a receiving set 3 so that the music may be required. Then, in a receiving set 3, for example through the wide area networks 4, such as public networks, such as the Internet, an ISDN

network, and a PSTN network, or a CATV network, a communication link with a broadcasting station 1 is established, and the purport (suitably henceforth request information) which requires the music for which the user asked is transmitted. At a broadcasting station 1, the audio data as the music used for a program, for example, music corresponding to the request information when digital audio data (associated data) are managed and request information is received from a receiving set 3, are transmitted to a receiving set 3 through a wide area network 4.

[0029] In a receiving set 3, the audio data transmitted through a wide area network 4 from a broadcasting station 1 are received and recorded.

[0030] Therefore, a user hears a program, when the music used for the program is pleasing, only does predetermined actuation of the receiving set 3, and can obtain the music easily and immediately.

[0031] Drawing 2 shows the example of a configuration of the broadcasting station 1 of drawing 1.

[0032] At this broadcasting station 1, it is made as [perform / by the FM multiplex broadcast / with the usual FM broadcasting / a teletext], for example.

[0033] That is, it is made as [input / into FM multiplex modulation section 11 (program data transmitting means) / the audio broadcast signal broadcast as a program by FM broadcasting and the text as a program by the teletext], and FM multiplex modulation section 11 is made as [output / to an audio broadcast signal / multiplex text carry out FM modulation and].

[0034] Here, drawing 3 shows the multiplexed signal which multiplexed an audio broadcast signal and text. An audio broadcast signal consists of a signal of L channels and R channels, and signal L+R or L-R is arranged at the low-pass [of the pilot signal arranged near 19kHz], or high region side, respectively. And text is arranged at the high region side (drawing 3 near 76kHz) of signal L-R.

[0035] The communications department 12 (identification information receiving means) (associated data transmitting means) (information receiving means) is made as [perform / communications control between a server 13 and a wide area network 4]. The server 13 consisted of record media 16 which become with CPU14, memory 15, a hard disk, etc., and has managed the audio data (associated data) as music used for the program broadcast as FM broadcasting. That is, CPU14 (retrieval means) is made as [perform / management of read-out of the data from a record medium 16, and other required processings]. Memory 15 is made as [memorize / on actuation of CPU14 / required data]. The audio data as music used for the program broadcast as FM broadcasting are connected with the identification information for identifying it, and are recorded on the record medium (storage) 16 (storage means) (storage).

[0036] At the broadcasting station 1 constituted as mentioned above, the audio broadcast signal broadcast as a program by FM broadcasting is inputted into FM multiplex modulation section 11. Furthermore, when an audio broadcast signal is music, the identification information (for example, predetermined code beforehand assigned to music) for identifying the music is inputted into FM multiplex modulation section 11 as text. In addition, when music is not contained in the audio broadcast signal (i.e., when it is a D.J.'s voice etc.), not identification information but the information which should be broadcast as a usual teletext is inputted as text.

[0037] In FM multiplex modulation section 11, FM modulation is multiplexed and carried out and the identification information as text is outputted to an audio broadcast signal as a multiplexed signal. This multiplexed signal is transmitted through a transmission line 2 as an electric wave.

[0038] On the other hand, from a receiving set 3, if the communications department 12 has access through a wide area network 4, it will establish a communication link with a receiving set 3, and will start the communications control between a receiving set 3 and a server 13. Moreover, a server 13 will perform processing according to the flow chart of drawing 4, if a communication link with a receiving set 3 is established in the communications department 12.

[0039] That is, in step S1, it is first judged by CPU14 whether the request information from a receiving set 3 was received. In step S1, when judged with having not received request information, it returns to step S1. Moreover, in step S1, when judged with having received request information, it progresses to step S2 and CPU14 searches the audio data corresponding to the request information from a record medium 16. That is, identification information is contained and CPU14 reads the audio data connected with the identification information from a record medium 16 to request information so that it may mention later.

[0040] And in step S3, CPU14 makes the communications department 12 transmit and transmit the audio data read from the record medium 16, and ends processing. That is, thereby, the communications department 12 transmits the audio data transmitted from CPU14 through a wide area network 4 to the receiving set 3 which has transmitted request information, and cuts the circuit between receiving sets 3 after termination of the transmission.

[0041] Next, drawing 5 shows the example of a configuration of the receiving set 3 of drawing 1.

[0042] As shown in this drawing, a receiving set 3 consists of the tuner section 31 and the information processing section 32.

[0043] The tuner section 31 consists of the recovery/separation section 21, the signal-processing section 22, and the output section 23.

[0044] Recovery/separation section 21 (program data receiving means) receives the electric wave transmitted from a broadcasting station 1, and is made as [restore / to the multiplexed signal of the predetermined channel of the input signal]. Furthermore, from the recovery signal, recovery/separation section 21 separates an audio broadcast signal and text, and is made also as [output / to the signal-processing section 22]. In addition, text is made as [supply / the I/F section 24 of the information processing section 32 besides the signal-processing section 22].

[0045] The signal-processing section 22 performs required signal processing to the audio broadcast signal and text from recovery/separation section 21, and is made as [supply / the output section 23]. The output section 23 (output means) has loudspeaker 23A and monitor 23B, the voice and the music as an audio broadcast signal are outputted from loudspeaker 23A, and the alphabetic character and graphic form as text are made as [display / on monitor 23B]. In addition, the signal-processing section 22 is supplied to the output section 23, only when text is the usual information which should be carried out teletext broadcast, and when text is identification information, it is made as [supply / the output section 23].

[0046] On the other hand, the information processing section 32 consists of the I/F section 24, the communications department 25, CPU26, memory 27, the Records Department 28, a record medium 29, and a control unit 30.

[0047] The I/F section 24 receives the text supplied from recovery/separation section 21 of the tuner section 31, and when it is identification information, it is made as [supply / CPU26]. The communications department 25 (identification information transmitting means) (associated data receiving means) (information transmitting means) is made as [perform / communications control between CPU26 and a wide area network 4]. CPU26 is made as [perform / various kinds of processings] corresponding to actuation of a control unit 30 etc. Memory 27 is made as [memorize / on actuation of CPU26 / required data]. The Records Department 28 (record means) is made as [control / the writing of data to a record medium 29]. Record media 29 are a magneto-optic disk, a magnetic disk, and a record medium (storage) that can write a memory card and others, and are made as [memorize / the data supplied from the Records Department 28] (record). In addition, the record medium 29 is made removable to the information processing section 32.

[0048] The control unit 30 consists of keyboard 30A and select button 30B. Keyboard 30A is operated when inputting predetermined information, a predetermined command, etc. Select button 30B (actuation means) is operated when requiring the music outputted from loudspeaker 23A.

[0049] In the receiving set 3 constituted as mentioned above, in recovery/separation section 21, the electric wave transmitted from a broadcasting station 1 is received, and the multiplexed signal of the predetermined channel of the input signal gets over. Furthermore, recovery/separation section 21 outputs text to the signal-processing section 22 and the I/F section 24 while it separates an audio broadcast signal and text and outputs an audio broadcast signal to the signal-processing section 22 from the recovery signal.

[0050] In the signal-processing section 22, signal processing required for an audio broadcast signal from recovery/separation section 21 is performed, and the output section 23 is supplied. Thereby, from loudspeaker 23A of the output section 23, the voice and the music as an audio broadcast signal are outputted. Moreover, in the signal-processing section 22, when the text from recovery/separation section 21 is not identification information, too required signal processing is performed and the output section 23 is supplied. Thereby, text is displayed on monitor 23B of output section 23A.

[0051] On the other hand, the I/F section 24 supplies the identification information to CPU26, when the text from recovery/separation section 21 is identification information.

[0052] In CPU26, processing according to the flow chart of drawing 6 is performed.

[0053] That is, first, when it judges that it is not judged and operated by whether select button 30B was operated in step S11, it returns to step S11. Moreover, in step S11, when judged with select button 30B having been operated, it progresses to step S12 and the request information which requires the audio data of music with which CPU26 was outputted from loudspeaker 23A when the audio data corresponding to the identification information then supplied from the I/F section 24, i.e., select button 30B, were operated is generated.

[0054] Specifically, the bank account for paying the countervalue (tariff) to the identification information (what was supplied from the I/F section 24) for identifying the purport which requires audio data, and its

audio data, and its audio data, or the number of a credit card is included in request information. In addition, you may make it the thing which made memory 27 memorize what could operate keyboard 30A whenever the user operated select button 30B, could input, and operated and inputted keyboard 30A beforehand, and this memory 27 was made to memorize used for the number of the bank account or credit card included in request information.

[0055] CPU26 progresses to step S13 after generation of request information, controls the communications department 25, and makes request information transmit to a broadcasting station 1 through a wide area network 4.

[0056] That is, for example, the access place to the broadcasting station which is broadcasting the audio broadcast signal is also contained in identification information, and the communications department 25 establishes the communication link between the access place (here broadcasting station 1) through a wide area network 4 according to control of CPU26. And the communications department 25 transmits request information to the access place 1, i.e., a broadcasting station, through a wide area network 4.

[0057] If request information is transmitted to a broadcasting station 1 as mentioned above, as drawing 2 explained, at a broadcasting station 1, the audio data corresponding to the request information, i.e., the audio data corresponding to the identification information contained in the request information, will be searched and transmitted.

[0058] Then, in CPU26, it progresses to step S14 after transmission of request information, and it is judged whether audio data have been transmitted from the broadcasting station 1. In step S14, when judged [that audio data have not been transmitted from a broadcasting station 1, and], it returns to step S14.

Moreover, when judged with audio data having been transmitted from the broadcasting station 1, it progresses to step S15 and CPU26 makes the communications department 25 receive the audio data. Furthermore, the audio data received in the communications department 25 are transmitted to the Records Department 28, and CPU26 makes them record on a record medium 29. And processing will be ended if all the audio data transmitted are received and recorded from a broadcasting station 1.

[0059] Therefore, when asking for the music broadcast in the program, while the music is broadcast, a user only operates select button 30B, and can obtain the audio data of the music.

[0060] Moreover, in the gestalt of this operation, since it considered as the digital data as audio data were mentioned above, the good music of tone quality can be obtained as compared with the case where the audio broadcast signal itself broadcast as a radio broadcasting is recorded.

[0061] In addition, as mentioned above, a user's bank account or the number of a credit card is contained in the request information received at a broadcasting station 1. At a broadcasting station 1, a tariff is charged directly after transmission of audio data based on the number of the bank account contained in the request information, or a credit card corresponding to request information.

[0062] Moreover, the list of the tariffs to offer of audio data can transmit from a broadcasting station 1 as text. In this case, a user can know the tariff of audio data by seeing the list of the tariffs as text displayed on monitor 23B.

[0063] Next, drawing 7 shows the gestalt of operation of the 2nd of the audio offer system which applied this invention. In addition, about the case in drawing 1, and the corresponding part, the same sign is attached among drawing.

[0064] In the gestalt of this operation, the electric wave transmitted from the broadcasting station 1 is received through a transmission line 2 in the receiving set 42 which the user of the midst who is moving in an automobile 41 etc. has. Thereby, the program which the broadcasting station 1 is broadcasting is outputted from a receiving set 42.

[0065] A user hears the program outputted from a receiving set 42, and when asking for the music used for the program, he does predetermined actuation of the receiving set 42. Then, like the receiving set 3 of drawing 1, through a wide area network 4, a receiving set 42 establishes a communication link with a broadcasting station 1, and transmits request information. However, the specific information (if the number of the circuit to which the receiving set 43 is connected, and a wide area network 4 are the Internet when a wide area network 4 is a public network, it is the so-called E-mail address of the user of a receiving set 43 etc.) for specifying the equipment (here, it considering as the receiving set 43 with which user ** is equipped, for example) which should transmit audio data in addition to the information mentioned above is included in request information in this case.

[0066] A broadcasting station 1 will transmit the audio data as music corresponding to the request information through a wide area network 4, if request information is received from a receiving set 42. However, a broadcasting station 1 transmits audio data to a receiving set 43 in this case at the terminal specified by the specific information contained in request information (information processor), i.e., here.

[0067] In the receiving set 43 in user **, the audio data transmitted through a wide area network 4 from a broadcasting station 1 are received and recorded.

[0068] Therefore, a user can obtain the music easily and immediately by carrying out predetermined actuation of the receiving set 42, when the music which hears a program and is used for the program is pleasing, even if it is under migration by automobile etc.

[0069] The flow chart of drawing 8 shows actuation of the server 13 of the broadcasting station 1 in the gestalt of operation of drawing 7. In addition, since it is the same as that of what showed the configuration of a broadcasting station 1 fundamentally to drawing 2 in this case, that explanation is omitted.

[0070] In this case, in steps S21 and S22, the respectively same processing as the case in steps S1 and S2 of drawing 4 is performed. And in step S23, audio data are transmitted to the receiving set 43 (location) specified by the specific information contained in the request information instead of the receiving set 42 which has transmitted request information by the communications department 12 (drawing 2) through a wide area network 4, and processing is ended from it.

[0071] Next, drawing 9 shows the example of a configuration of the receiving set 42 of drawing 7. In addition, about the receiving set 3 in drawing 5, and the part constituted similarly fundamentally, the same sign is attached among drawing. That is, a receiving set 42 consists of the tuner section 31 and the information processing section 32 (the 1st information processor), therefore, fundamentally, is constituted like the case in drawing 5. However, the information processing section 32 is constituted in the receiving set 42, without forming the Records Department 28 and a record medium 28.

[0072] In the gestalt of this operation, the tuner section 31 is installed in the automobile 41 (it should have in the automobile 41). And the information processing section 32 is a portable small computer (information processor) (MobileComputer) (terminal), and through the connection terminal which is not illustrated, the tuner section 31 and connection are attained for it, and it is made as [receive / by this / in the I/F section 24 / the text which recovery/separation section 21 of the tuner section 31 outputs].

[0073] Next, the actuation is explained with reference to the flow chart of drawing 10.

[0074] In the tuner section 31, an audio broadcast signal and text as well as the case in drawing 5 are outputted.

[0075] On the other hand, in the information processing section 32, in steps S31 and S32, the respectively same processing as the case in steps S11 and S12 of drawing 6 is performed, and, thereby, request information is generated. And it progresses to step S33 and CPU26 progresses to request information at step S34 including the specific information about a receiving set 43. At step S34, like the case in step S13 of drawing 6, request information is transmitted to a broadcasting station 1, a circuit with a broadcasting station 1 is cut after that, and processing is ended.

[0076] In addition, between a receiving set 42 and a wide area network 4, transmission of request information is performed by performing radio in this case. On the other hand, in the gestalt of the 1st operation, the communication link by the cable is fundamentally performed between a receiving set 3 and a wide area network 4. However, also in the gestalt of the 1st operation, it is possible to perform transmission of request information by radio.

[0077] If the request information which contains specific information as mentioned above is transmitted to a broadcasting station 1, as drawing 8 explained, a broadcasting station 1 will transmit audio data to the receiving set 43 specified by the specific information contained in request information.

[0078] Then, drawing 11 shows the example of a configuration of the receiving set 43 (the 2nd information processor) of drawing 7. In addition, about the receiving set 3 in drawing 5, and the part constituted similarly fundamentally, the same sign is attached among drawing. That is, the receiving set 43 consists of only the information processing sections 32. However, the information processing section 32 is constituted in the receiving set 43, without forming the I/F section 24 and a control unit 30.

[0079] Next, the actuation is explained with reference to the flow chart of drawing 12.

[0080] In a receiving set 43, if there is access from a broadcasting station 1 through a wide area network 4, in the communications department 25, a communication link with a broadcasting station 1 (communications department 12) will be established. And in step S41, it is judged whether audio data have been transmitted from the broadcasting station 1. In step S41, when judged [that audio data have not been transmitted from a broadcasting station 1, and], it returns to step S41. Moreover, when judged with audio data having been transmitted from the broadcasting station 1, it progresses to step S42 and CPU26 makes the communications department 25 receive the audio data. Furthermore, the audio data received in the communications department 25 are transmitted to the Records Department 28, and CPU26 makes them record on a record medium 29. And processing will be ended if all the audio data transmitted are received and recorded from a broadcasting station 1.

[0081] Therefore, even if it is the case where the music broadcast during migration by automobile 41 etc. is listened to, while the music is broadcast, a user only operates select button 30B, and can obtain the audio data of the music.

[0082] In addition, although the receiving set 43 currently installed in user ** receives and audio data were recorded in this case, it is also possible to form and constitute the Records Department 28 and a record medium 29, to set a receiving set 43 to a receiving set 43, to receive and to record audio data.

[0083] As mentioned above, although the case where it applied to the audio offer system which offers the music used in the program of a radio broadcasting in this invention was explained, this invention can be offered also when, offering the video data and audio data as an image or music which were used in the program of television broadcasting in addition to this. Also in this case, identification information can be transmitted by teletext broadcast. That is, it is possible to superimpose and transmit to the perpendicular blanking period of a television broadcasting signal in this case, as identification information is shown in drawing 13.

[0084] Here, drawing 13 expresses the wave of the perpendicular blanking period of the video signal by the television broadcasting based on NTSC system. In addition, drawing 13 (A) or drawing 1313 (B) expresses the perpendicular blanking period of the odd number field or the even number field, respectively.

[0085] the 10th in which, as for text (identification information) (drawing 13 has described the alphabetic signal), an equivalence pulse does not exist among perpendicular blanking periods (vertical blanking interval) — H (Rhine) thru/or the 21st — H and the 273rd, although superimposing on H thru/or 284H is theoretically possible current — the effect of the display screen on a video signal etc. — taking into consideration — the 16th — H and the 21st — H and a list — the 279th — H and the 284th — by television broadcasting, teletext broadcast is performed by superimposing text on H.

[0086] In addition, in the gestalt of this operation, although the identification information for discriminating audio data from a broadcasting station 1 was transmitted with the audio broadcast signal, identification information does not necessarily need to transmit from a broadcasting station 1.

[0087] That is, as identification information, time of day is used, time of day (henceforth actuation time of day) when select button 30B is operated is included in request information as identification information, and it is made to transmit to a broadcasting station 1. Furthermore, at the broadcasting station 1, the audio data as music used for the program are connected with the broadcasting hours, and are recorded on the record medium 16 (drawing 2). When it does in this way, at a broadcasting station 1, the audio data connected with the broadcasting hours containing the actuation time of day as identification information included in request information can be searched, and a user can get the audio data for which it asks by transmitting this.

[0088] Moreover, a server 13 can be made into the server which constitutes the Internet and which has a domain name. In this case, audio data are matched with URL (Uniform Resource Locator) for example, in a WWW (WorldWide Web) system, and it becomes possible by using this as identification information to obtain the music used for programs, such as satellite broadcasting service, at the communication link tariff of a small amount.

[0089] Furthermore, in the gestalt of this operation, although it was made to include the server 13 which provides a broadcasting station 1 with audio data, the broadcasting station 1 of a server 13 is possible also for making it prepare independently. however, come out between a broadcasting station 1 and a server 13 in this case — it communicates and it is necessary to make it make the audio data of the music broadcast at a broadcasting station 1 record on a record medium 16

[0090] Moreover, when identification information is received, monitor 23B can be made to display that on a receiving set 3 (for the same to be said of a receiving set 42). In this case, it can know whether a user's music used for the program is available.

[0091]

[Effect of the Invention] When actuation of requiring the associated data relevant to program data is made in a receiving set according to a transmitter—receiver according to claim 1 and the transceiver approach according to claim 8, the identification information for identifying the associated data is transmitted to a sending set. On the other hand, in a sending set, the identification information transmitted from a receiving set is received, and the associated data corresponding to the identification information is searched and transmitted from a storage means by which associated data is memorized. Therefore, it becomes possible to obtain associated data easily.

[0092] When actuation of requiring the associated data relevant to program data is made according to a receiving set according to claim 9 and the receiving approach according to claim 16, the identification information for identifying the associated data is transmitted to a sending set. Therefore, it becomes

possible to obtain the associated data corresponding to identification information easily.

[0093] According to a sending set according to claim 17 and the transmitting approach according to claim 22, the identification information for identifying the associated data relevant to program data transmitted from a receiving set is received, and the associated data corresponding to the identification information is searched and transmitted from a storage means by which associated data is memorized. Therefore, it becomes possible to offer the associated data corresponding to identification information easily.

[0094] According to a transmitter-receiver according to claim 23 and the transceiver approach according to claim 24, with the 1st information processor, when actuation of requiring the associated data relevant to the program data received by the receiving set is made, the identification information for identifying the associated data is transmitted to a sending set with the specific information for specifying the 2nd information processor. Then, the identification information and specific information which are transmitted from the 1st information processor are received, the associated data corresponding to identification information is searched with a sending set from a storage means by which associated data is memorized, and it is transmitted to the 2nd information processor specified by specific information. And the associated data which is searched with the 2nd information processor in a sending set, and is transmitted is received and recorded. In the 2nd information processor which follows, for example, is different from the 1st information processor, it becomes possible to obtain associated data.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is drawing showing the configuration of the 1st of the gestalt of operation of the audio offer system which applied this invention.

[Drawing 2] It is the block diagram showing the example of a configuration of the broadcasting station 1 of drawing 1 .

[Drawing 3] It is drawing showing the signal by the FM multiplex broadcast.

[Drawing 4] It is a flow chart for explaining actuation of the server 13 of drawing 2 .

[Drawing 5] It is the block diagram showing the example of a configuration of the receiving set 3 of drawing 1 .

[Drawing 6] It is a flow chart for explaining actuation of the information processing section 32 of drawing 6 .

[Drawing 7] It is drawing showing the configuration of the 2nd of the gestalt of operation of the audio offer system which applied this invention.

[Drawing 8] It is a flow chart for explaining actuation of the broadcasting station 1 of drawing 7 .

[Drawing 9] It is the block diagram showing the example of a configuration of the receiving set 42 of drawing 7 .

[Drawing 10] It is a flow chart for explaining actuation of the information processing section 32 of drawing 9 .

[Drawing 11] It is the block diagram showing the example of a configuration of the receiving set 43 of drawing 7 .

[Drawing 12] It is a flow chart for explaining actuation of the information processing section 32 of drawing 11 .

[Drawing 13] It is the wave form chart showing the perpendicular blanking period of a television broadcasting signal.

[Description of Notations]

1 Broadcasting Station 2 Transmission Line 3 receiving set 4 A wide area network, 11 FM multiplex modulation section 12 The communications department, 13 Server 14 CPU, 15 Memory 16 A record medium, 21 Recovery/separation section 22 The signal-processing section and 23 output section 23A Loudspeaker 23B monitor 24 The I/F section, 25 The communications department, 26 CPU 27 Memory 28 Records Department 29 record media 30 Control unit 30A Keyboard 30B Select button 31 The tuner section, 32 Information processing section 41 An automobile, 42, 43 receiving sets

[Translation done.]

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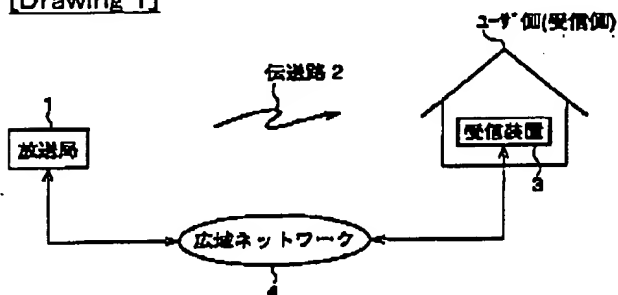
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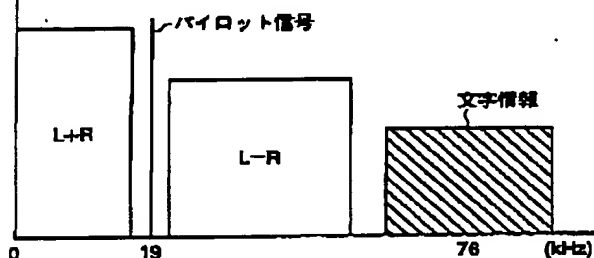
DRAWINGS

[Drawing 1]

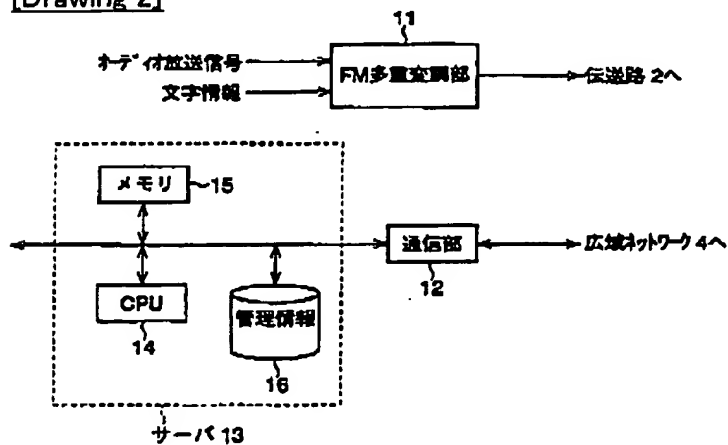


オーディオ提供システム

[Drawing 3]

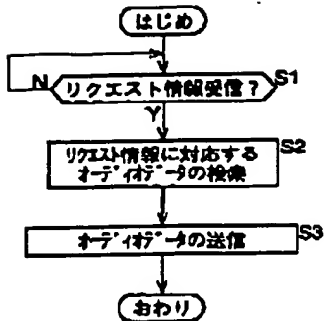


[Drawing 2]

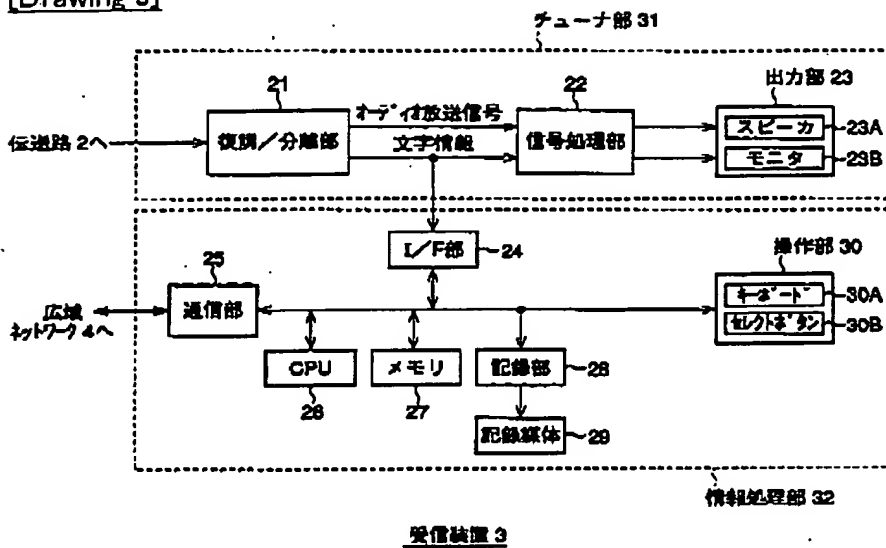


放送局 1

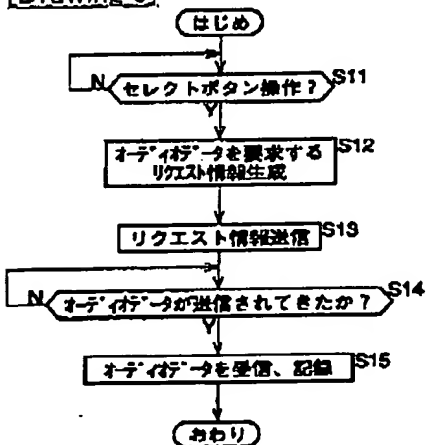
[Drawing 4]



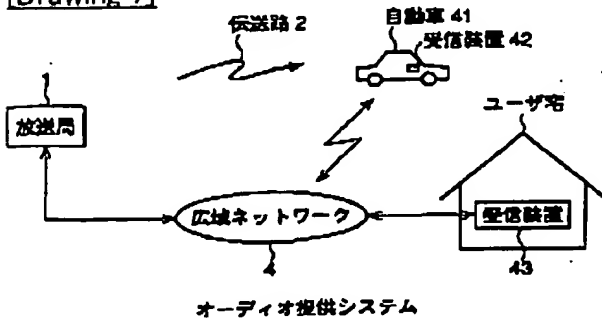
[Drawing 5]



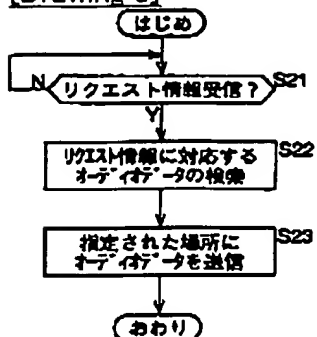
[Drawing 6]



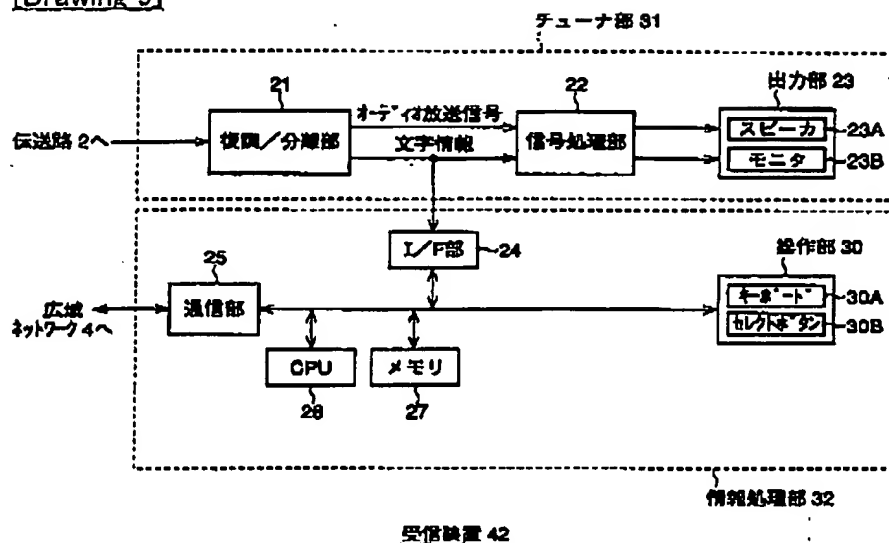
[Drawing 7]



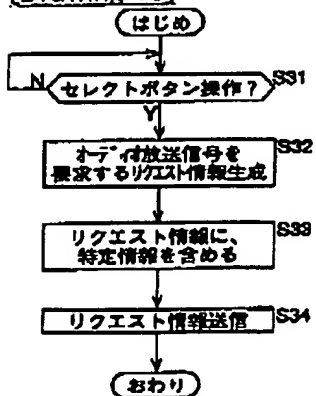
[Drawing 8]



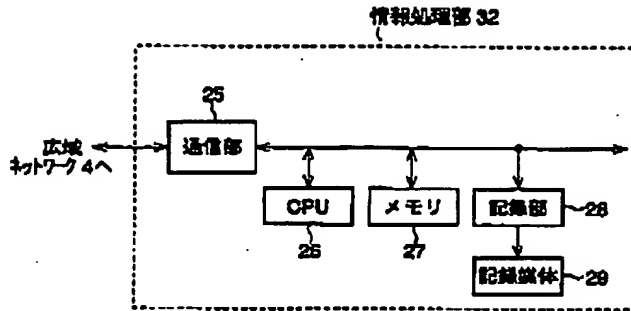
[Drawing 9]



[Drawing 10]

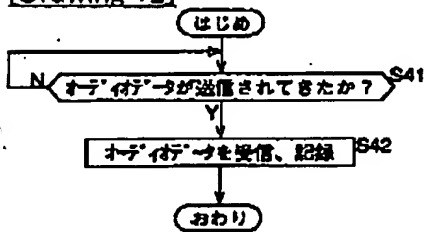


[Drawing 11]

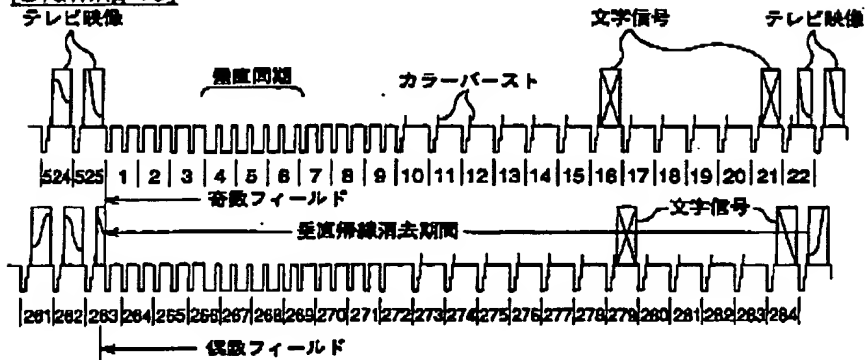


受信装置 43

[Drawing 12]



[Drawing 13]



垂直帰線消去期間の波形

[Translation done.]

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